

1. A shoe or footwear item having a sole whose outer face (1a) is intended to come into contact with the ground and whose inner face (2b) is intended to come into contact with the foot of a wearer, said sole comprising a dynamic element extending longitudinally with respect to a longitudinal axis (L) of the sole, on either side of said axis, characterized in that the dynamic support element (3; 30; 40) is positioned in the sole such that it lies longitudinally beneath a zone corresponding to the arch of the foot, and comprises at least two elastically deformable components or parts corresponding respectively to two lateral points of bearing on the ground, which are located on either side of the longitudinal axis (L) of the shoe for storing and releasing energy when said sole is subjected to lateral stress, and arranged so as to produce an antagonist dynamic interaction between said two deformable components when said sole is subjected to stress.
2. The shoe as claimed in claim 1, characterized in that the dynamic support element comprising a spring plate (3) is positioned in the sole such as to lie at least partially beneath a zone corresponding to the arch of the foot, and at least a part of the front part of the foot.
3. The shoe as claimed in claim 2, characterized in that the two deformable components or parts are joined or arranged on the spring plate.
4. The shoe as claimed in claim 3, characterized in that the dynamic support element comprises at least one set of two deformable components or parts,

arranged on either side of a metatarsus support zone.

5. The shoe as claimed in claim 4, characterized in that the spring plate (3) comprises at least four arms (4, 5, 6, 7), defining an X shape for example, each of the arms (4, 5, 6, 7) bearing on a pad (4a, 5a, 6a, 7a) constituting an elastically deformable component or part.

10. 6. The shoe as claimed in claim 5, characterized in that each pad (4a, 5a, 6a, 7a) is an attached compressible piece.

15. 7. The shoe as claimed in claim 5 or 6, characterized in that the spring plate (3) has a central part (8) extending transversely with respect to a longitudinal axis (L) of the sole, the arms (4, 5, 6, 7) extending obliquely toward the pads (4a, 5a, 6a, 7a) from said central part (8).

20. 8. The shoe as claimed in claim 7, characterized in that the central part (8) has a transverse groove (9), located in said sole in the zone corresponding to the position of the metatarsus, thus allowing elastic deformation of the spring plate (3) along an axis substantially normal to the longitudinal axis (L).

25. 9. The shoe as claimed in any one of claims 5 to 8, characterized in that the spring plate (3) has thicker parts (3a), at least locally.

30. 10. The shoe as claimed in claim 9, characterized in that the thicker parts (3a) are made of an elastic material and are locally thinned.

11. The shoe as claimed in any one of claims 5 to 10, characterized in that the dynamic element is a spring plate (3) with shape memory.

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12. The shoe as claimed in any one of claims 5 to 11, characterized in that the spring plate (3) is fastened for example by adhesive bonding to the inner face (1b) of the outer layer (1).

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13. The shoe as claimed in any one of claims 5 to 12, characterized in that the spring plate (3) comprises at least one V-shaped piece.

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14. The shoe as claimed in any one of claims 5 to 12, characterized in that the spring plate (3) comprises at least two V-shaped pieces assembled in opposition.

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15. A shoe or footwear item comprising a sole extending in a longitudinal direction (L), from a front end (20) to a rear end (30), whose outer face (1a) is designed to come into contact with the ground and whose inner face (1b) is designed to support the foot directly, said sole comprising an element for the dynamic support of the movement of the foot, characterized in that said dynamic support element is designed for a lateral movement of the foot in any direction (T) transverse to the longitudinal direction (L), and is arranged at least in the front part of the foot and extends in a direction perpendicular to the plane of the sole, or its thickness, between the outer face (1a) (including the latter) and the inner face (1b) (including the latter) of said sole, said element comprising at least two elastically deformable components or parts (4a, 5a, 6a, 7a) for the front part of the

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foot, arranged in the front part of the sole respectively on either side of the longitudinal direction, and aligned in the transverse direction (T), each support component being elastically deformable in a direction perpendicular to the plane of the sole, short of (compression) and beyond (expansion) a nominal position or conformation under the effect of the weight of the body, via the foot, respectively when the foot bears laterally on either of the deformable components and when said bearing force ceases.

16. The shoe as claimed in claim 15, characterized in that the deformable components or parts are independent of one another.

17. The shoe as claimed in claim 15, characterized in that the deformable components or parts are mechanically integral.

18. The shoe as claimed in any one of claims 15 to 17, characterized in that the structure of the sole is a multi-component structure.

19. The shoe as claimed in any one of claims 15 to 17, characterized in that the structure of the sole is a one-piece structure.